cases are not passed on to the experts. Free and easy access to psychiatric departments is essential. I have now worked in Ibstock for nearly fifteen years. I see some 40–60 depressed persons each year. Most people in the village now know I am interested in the subject and that they will get a sympathetic hearing. The number of actual suicides in such a compact community is too small to be statistically significant, but the figures are interesting and they are suggestive.

Fig 1 shows that over the years there is an increase in mental hospital admissions, and a rise in the number of patients who have had E.C.T. At the same time the suicide rate has fallen. In Table 2 the Ibstock figures are compared with those of the country as a whole. The low figures of the pre-war years show how misleading a small series of cases can be. The apparent fall in the suicide rate in Fig 1 is indeed no more than a straw in the wind.

Table 2
Suicide rate per 100,000 population

Years	*England and Wales*	*Ibstock*
1936–40	11·9	5
1941–45	8·43	10
1946–50	10·33	20
1951–55	10·42	5
1956–60	11·72	5
Average for 5 years	10·56	9·0

The problem of suicide is something we must all face. We who are outside psychiatry are in the forefront of the campaign. I believe that by being better diagnosticians, by being more aware of the dangers and disguises of depression, we in general medicine and in general practice can do more to lower the suicide rate than the psychiatrists themselves.

Suicide in Old Age

by Peter Sainsbury MD[1] (*Chichester*)

My purpose is to consider some social and psychiatric data on suicide in old people to illustrate how both kinds of information contribute to our understanding of suicide and to its prevention.

Suicide Statistics and Age

The suicide rates of both sexes increase with age. There is a sharp increase in middle age and a further increase with advancing age, the latter trend being much more pronounced in men than in women.

This rise in incidence of suicide with age is broadly the pattern found in nearly all those nations which publish suicide statistics (*Epidem. vit. Stat. Rep.* 1956). But pre-war China provided an instructive exception to this rule as the suicide rate of the old was less than that of the young. Ancestor reverence was then still customary so that the old person was not subjected to the loss of status and prestige which is usual in our culture (Yap 1961).

In the past fifty years the male suicide rates have been decreasing in most countries, but the decrease has been less in the old than in the young (Swinscow 1951). Female rates, on the other hand, have been increasing, especially in the elderly. When an attempt was made to account for the high suicide rates of the aged of 20 nations it was found that they were unrelated to the increase in the proportion of aged in their populations, and to the economic assistance provided by their old age pension schemes (Sainsbury 1961). Other social factors than the economic hardships of the aged were, therefore, thought to be determining their increase in suicide.

Suicide and Mental Illness

Batchelor & Napier (1953) diagnosed 10% of their attempted suicides aged 60 and over as having an organic dementia. I also noted an unexpectedly high incidence of organic dementia among suicides reported to a London coroner (Sainsbury 1955). Between 15% and 20% of those over 60 had signs both of intellectual deterioration and marked cerebrovascular changes *post mortem*.

Depressive illness is a more widely recognized precursor of suicide, and the probability of suicide in a patient with a psychotic depression is found to be much greater after the age of 40 (Robins *et al.* 1959). In one recent study (Batchelor & Napier 1953) 47% of suicide attempts aged 60 and over were diagnosed as having a depressive illness, and in another, 70% were found to be severely depressed (O'Neal *et al.* 1956). It is less easy to determine the incidence of depression in retrospective studies of those who have committed suicide. In 409 suicides in London, 55% of the middle aged and elderly were recorded by the coroner as depressed compared with only 40% of the younger cases. More recently Capstick (1960) concluded that 48% of 351 suicides over 60 were depressed. There is, therefore, a fair amount of agreement that pathological depression precedes suicide in about half the cases. The problem however, is what are the distinguishing features of the minority of endogenous depressions, estimated

[1]Medical Research Council. Clinical Psychiatry Research Unit, Graylingwell Hospital.

at about 14% (Robins *et al.* 1959), who will eventually commit suicide.

There is evidence that patients with depressive illness and suicides are distinct populations. The age- and sex-specific rates for depression and suicide (Table 1) show how different the two are. Their class distributions also differ. Nevertheless suicide and depression in later life are in fact associated, and this is clearly of real importance both from the point of view of recognizing the risk and of preventing suicide; but the crucial factors in the individual, in his environment and in their interaction which constitute the causal nexus of suicide, still need to be identified.

Table 1
Depression and suicide: rates per 100,000 (Registrar-General, 1959, 1960)

	Depression		*Suicide*	
Age	*Male*	*Female*	*Male*	*Female*
45–	56	22	91	16
55–	80	35	102	20
65–	58	43	72	22
75+	24	49	25	14

Physical Illness

Physical illness may predispose to suicide by restricting an old person's already limited activities, and in many other ways. But the physiological and biochemical effects of illness may also foster suicide because, of themselves, they may disturb consciousness and mood. MacKinnon & MacKinnon (1956) recently provided a very clear illustration of such a relation between suicide and endocrine physiology. They examined the endometrial sections of 23 women who committed suicide, and only one was found to be in the follicular phase of the menstrual cycle.

Social Factors

I have recently compared the incidence of personal stresses and crises supposedly precipitating suicide in the three age groups 20–39, 40–59, and 60 and over (Table 2).

Crises in personal relationships, in particular marital and family quarrels, preceded suicide most often in the young, less in the middle, and least in the old age group. The opposite obtained as regards physical illness, which was judged to have contributed to suicide in 10% of the young, 27% of the middle-aged and in 35% of the elderly. Both these differences are highly significant ($p < 0.001$).

Loneliness is another burden of old age. In London I found that the suicides were living alone to a significantly greater degree than were the population at risk. Moreover, suicides aged 60 and over were found to be living alone to a significantly greater extent than either the middle-aged or young. Similarly, *bereavement* preceded suicide significantly more often in the old-age group.

Wealth is associated with suicide; poverty is not (Sainsbury 1955). Also, no differences were found between the three broad age groups in the proportion of suicides attributable to *destitution*, *poverty* and *unemployment*; though lack of employment was mentioned as having contributed in 20% of elderly male suicides. In the other two age groups it was loss of employment, rather than lack of it, that apparently precipitated the suicide.

Retirement also appears to be associated with a rise in incidence of suicide, because male suicides reach their peak at 65–70. But women, whose working life is not subjected to the same abrupt change at this age, do not manifest the same sharp increase.

When the proportion of deaths from suicide in males in 30 occupations, sampling all socio-economic levels, were compared in the two age groups 20–64 and 65 and over, it was found that the proportion of deaths from suicide decreased on retirement in the higher status groups, but increased in the lower ones. The difference was significant (Sainsbury 1961). Suicide, therefore, tends to decrease after 65 in the higher social classes and increase in the lower ones. The former, it may be supposed, retire to more secure economic circumstances than the latter. This may not be the

Table 2
Incidence % of factors contributing to 409 suicides in three age groups

	Living alone	*Bereavement*	*Economic stress*	*Loss of employment*	*Personal relations disturbed*	*Physical illness*
Young 20–39	17	5	7	17	33	10
Middle-aged 40–59	23	9	17	22	11	27
Old 60+	39	16	15	21	8	35
p	<0·001	<0·02	NS	NS	<0·001	<0·001

NS = not significant.

crucial factor, however, as the higher social classes also tend to retire to opportunities for more varied interests and outlets and the evidence is, I believe, that it is these which protect the aged against suicide.

Recognition and Prevention

It has been observed that the seriousness of the intention to die is especially high in the suicidal attempts of the elderly (O'Neal *et al.* 1956) and of the physically ill (Hendin 1950). Intimations of suicide in the elderly, especially in the presence of physical illness, should therefore always be taken and dealt with at their face value. The prophylactic importance of correcting apparently minor ailments which limit the old person's independence should be emphasized.

Recent studies have indicated that about 70% of suicides were under medical care in the months immediately preceding death (Capstick 1960) and the same proportion, both above and below 60, communicated their intentions; though to their doctors less often than to their relatives (Robins *et al.* 1959).

It therefore seems that the little we do know about the clinical recognition of the potential suicide is insufficiently widely taught. The importance of depression in middle and late life has been stressed already, but what also needs emphasizing is that depression may masquerade as irritability, as over-concern about minor physical symptoms, or as a paranoid state; and that in organic confusional states a lethal depressive component is also often latent. In the more obviously depressed patient, sinister features include marked pessimism and hopelessness, delusions of worthlessness and of incurable disease. Above all it is always essential to discuss frankly with the depressed patient his attitude to the future, to dying, and to suicide.

Admission to hospital is advisable where there is a risk of suicide, but prison-like surveillance and restrictions may aggravate despair. I have recently examined the suicide rates of the resident population of our mental hospitals. From 1920–1947 they remained unchanged at about 50 per 100,000 (Stengel & Cook 1958). The advent of E.C.T. in the early 1940s was not accompanied by a decrease. During the 1950s, however, when a more liberal policy, including that of 'open doors' was introduced, the incidence of suicide in the resident patients decreased significantly. The last rate I have been able to calculate was 37 per 100,000 in 1956 (Registrar-General 1960). Perhaps a too zealous surveillance of the suicidal defeats its end.

Lastly, the prevention of suicide in later life will, I believe, depend to a considerable degree on social measures, such as providing for the basic economic needs of the aged and devising more elastic policy regarding the retirement of elderly people. More serious consideration needs to be given to planning retirement and to examining the needs of the retired elderly. I believe old people will continue to feel a useless burden, and therefore be suicide-prone until they have a real place in the community.

REFERENCES

Batchelor I R C & Napier M B (1953) *Brit. med. J.* ii, 1186
Capstick A (1960) *Brit. med. J.* i, 1179
Epidem. vit. Stat. Rep. (1956) 9, 243
Hendin H (1950) *Psychiat. Quart.* 24, 39
MacKinnon P C B & MacKinnon I L (1956) *Brit. med. J.* i, 555
O'Neal P, Robins E & Schmidt E H (1956) *Arch. Neurol. Psychiat., Chicago* 75, 275
Registrar-General for England and Wales
(1958) Decennial Supplement, England and Wales, 1951. London; Part II, Vol. 2
(1959) Statistical Review of England and Wales for the year 1956. London
(1960) Supplement on Mental Health for 3 years 1954–1956. London
Robins E, Murphy G E, Wilkinson R H, Gassner S & Kayes J (1959) *Amer. J. Publ. Hlth* 49, 888
Sainsbury P
(1955) Suicide in London. Maudsley Monographs No. 1. London
(1961) Proceedings of the International Research Seminar on the Social and Psychological Aspects of Aging. Berkeley, California (*in press*)
Stengel E & Cook M G (1958) Attempted Suicide. Maudsley Monographs No. 4. London
Swinscow D (1951) *Brit. med. J.* i, 1417
Yap P M (1961) Proceedings of the International Research Seminar on the Social and Psychological Aspects of Aging. Berkeley, California (*in press*)